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## THE TENTH ANNUAL MEETING OF THE WESTERN PHILOSOPHICAL ASSOCIATION

THE Western Philosophical Association held its tenth annual meeting at the University of Iowa, Iowa City, on March 25 and 26, in conjunction with the North Central Branch of the American Psychological Association and the newly organized association of Teachers of Psychology in Iowa. Almost all the colleges and universities within a radius of three hundred miles, including Chicago, Northwestern, and the State Universities of Minnesota, Wisconsin, Illinois, Missouri, Iowa, Kansas, and Nebraska, and several state normal schools, were represented in one or more of these groups.

At the business meeting Professor E. B. McGilvary was elected president, Professor J. E. Boodin vice-president, Professor B. C. Ewer secretary and treasurer; Professor Norman Wilde and Professor A. W. Moore were elected members of the executive committee. The next meeting of the association will be held at the University of Minnesota. There follow the abstracts of the papers which were presented.

*The Nature of Truth:* JOHN E. BOODIN.

The pragmatic movement has emphasized altogether the function of truth—truth as regulating the active procedure of the will, whether in the adjustment to nature or the conduct of the understanding. But this type of inquiry, important as it is, should not blind us to the more difficult problem of the nature of truth.

I have tried to show that there are four presuppositions or laws implied in all knowing, viz., the law of consistency, the law of totality, the subject-object form, and the law of finitude. By the law of consistency I understand that for the purpose of thought we must take $A$ as $a$ and therefore can not in the same respect take it as non-$A$. This law, therefore, includes the three traditional so-called laws of identity, contradiction and excluded middle. By the law of totality I mean that we must have systematic connection in the larger (in dem Grossen) as well as unique determination within the one kind

or series (in dem Kleinan), *i. e.*, the various kinds or attributes of reality must make such a difference to each other as to cohere in a system, if we are to have truth. By the law of subject-object I mean that within the universe of thought the subject-object relation—the active assimilation of a selected content, the datum, to a systematic purpose which gives it meaning, is insuperable. While, however, we can not think the universe except under the subject-object form, this does not prove that the universe as a whole is a reflective unity. This must be shown by evidence, not *a priori*. What I mean, fourthly, by the law of finitude is that the universe as the object of thought must have finite characteristics or relations. A universe of an infinite number of characteristics or relations would be indeterminable.

Finally the laws of thought are not the result of an arbitrary positing by the will, but are discovered as the conditions without which thinking is impossible. They can not be proved without involving a circle, as every proof necessarily presupposes the laws of thought. But by attempting to assert the contrary in the case of any judgment, we become conscious of their implication and so make them explicit—conditions which are binding upon the will, if it chooses to think. That the world of existence lends itself to the demands of truth must be found out by our success in knowing.

*An Idealistic Philosophy as a Basis of Psychotherapy:* ROWLAND HAYNES.

Only one question of an idealistic philosophy is here considered, the nature of the self, and only a limited number of writers, Mrs. Eddy, representing the mystical type of psychotherapy, Quackenbos, Dubois, and Worcester representing a partially scientific type, Münsterberg, representing a genuinely scientific type. This paper is a study in the psychology of metaphysics and tries to discover, in the writers discussed, the influence of their concepts of the self on their theory of psychotherapy.

Mrs. Eddy maintains that the self is mind only and this leads her psychotherapeutic theory to affirm that physical ills are a delusion. Quackenbos, Dubois, and Worcester, while differing widely, all believe that the self is twofold, that the psychical element can directly influence the physical, thus their therapeutic theory grows from and uses their concept of the self. Münsterberg distinguishes between the real self of purposes and the self of science and spends the first third of his "Psychotherapy" in demonstrating that the self of purposes has nothing to do with the self which is sick. His concept of the self is a part of his philosophy; his therapeutic theory a part of his concept of science. His philosophy is one of his meth-

ods of insuring the satisfaction of certain instinctive demands, called religious and ethical values. The crowding of these demands has shaped his philosophy and his philosophy has moulded his notion of science and of psychotherapy. In him the relation between his concept of the self and his theory of psychotherapy is indirect but real.

*Two Modern Social Philosophies:* ERNEST L. TALBERT.

Two tendencies are characteristic of modern thinking. One directs itself toward a subjective personal interpretation of life, the object being to achieve happiness by disbelieving in "matter," disease, poverty, and causes for worry. This subjective and individualistic attitude is represented in the various species of "new thought" and in Christian science. Another interpretation insists that the personal attitude and the cultivation of positive, wholesome feelings, although invaluable, is a one-sided solution of individual and social problems, and urges that the investigation and control of objective communal processes is a fit philosophic task.

Embodiments of the objective standpoints are socialism and anarchism, both of them vital social philosophies having significant philosophic and historical ancestry. The basic socialism is that of Karl Marx. In its inception it was a product of the post-Hegelian reaction, using the rationalistic dialectic of the absolute idea of Hegel to explain the downfall of the negative moment of capitalism and the synthesis in the cooperative commonwealth. It is at once fatalistic and revolutionary, logical and materialistic. Instead of rationalizing the real, of idealizing the established institutions of Prussia, it condemned the "inner contradictions" and irrationality of the capitalistic régime, and eulogized labor and the "proletariat" to offset the interest of Hegel in reason and the controlling orders. Besides the rationalistic, dialectic framework, Marx used the hedonistic ethics and postulates of utilitarianism, and failed to secure a satisfactory amalgamation. However, advances in scientific procedure and reaction of changing circumstances upon the initial categories have resulted in a constructive theoretical and practical movement known as "revisionism." The defects of Marxian socialism trace back to its philosophical and historical origin. It deflects attention from the next thing to be done, because of its faith in a predetermined drift toward a final goal, and it encounters in its economic and ethical aspects many of the difficulties of the English empiricists and hedonists.

Anarchism is anti-metaphysical, anti-dialectical, mechanical, and materialistic; it is fond of the flexible inductive hypothetical method as applied to all problems. It has some likenesses to socialism, but is impatient of external control and systematization, and finds its

ideal in small group harmony. The early atomistic bias is modified in the intelligent philosophical anarchists, such as Kropotkin: control in the social world proceeds from the dominance of sociability, propensities toward cooperation and mutual aid, which are developed through all stages of animal evolution. Anarchism is a protest; it has no satisfactory practical program, it forgets that even social impulses need standardization and objective regulation.

Socialism and anarchism present problems which may well occupy the minds of social theorists and statesmen. Typical problems are: (1) What do we mean by the "American spirit"? Is our common and statutory law now fitted to secure justice to all classes of the community? (2) What basis is there for the socialistic and anarchistic denunciation of the "profession"? To what extent have newspapers, predatory business interests, judges and police repressed free speech and opportunity for development in the so-called "lower classes"? (3) There is a pressing need of a more adequate social psychology which may underlie the social sciences and suggest comprehensive remedial practise.

Finally, three emphases of radicalism are valuable: (1) a contention that liberty is a function, not an attainment once for all, (2) a contribution made by "revisionist," socialist, and philosophical anarchist that a constructive logical method be applied, not only in the laboratory, but also in the field of concrete human interests, (3) a plea that a genuine democracy of the western world must found its theory and technique upon a utilization of the contributions of all functional members of the community. Otherwise, a Platonic stratification of classes without possibility of discussion and contact will continue, and justification of the protests of radicalism will be difficult to disprove.

*Epiphenomenalism:* E. B. McGILVARY.

According to Huxley, causation is invariable succession. The cause is the invariable antecedent, and the effect is the invariable consequent. We do not understand the why or the how of the connection, but we discover a causal connection when we ascertain a connection which holds good within experience and meets with no exception.

For this reason he holds that brain states are the causes of conscious processes. Designating the brain states by capital letters A, B, C, D, E, and the conscious processes that accompany them by x, y, z, we have according to Huxley's conception the double series

A—B—C—D—E
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  x—y—z.

Both B and x are the effects of A; both C and y are the effects

of B, etc.; the fact that x is an effect of A does not impair the validity of the law of the conservation of energy, because x does not use up any of the energy of A, which energy all passes over into B. x is not an energetic effect, but the fact that it is not an energetic effect does not preclude x from being an effect if it always follows upon A. This is inevitable if by effect is meant merely an invariable consequent.

But the same logic should have led Huxley to recognize that x as well as B is the cause of C. For if x always accompanies B and B always precedes C, then x must always precede C, and an invariable predecessor of C is a cause of C. But just as according to Huxley's view x is an effect of A without using any of the energy of A in coming into being, so x should be a cause of C without expending any energy in being the cause of C. The relation of energetic equivalence obtaining between A, B, C, D, and E is simply one kind of relation that is empirically ascertained to exist between them, and if something stands in the relation of invariable antecedence and succession to these terms, this antecedence and succession need not in any way interfere with the other relation of energetic equivalence which obtains among the terms A, B, C, D, E, provided that something is not of energetic character.

Huxley denied the causality of x, y, and z, not because they could not be causes of material events, but because he thought he found empirical proof that C could occur without x. But in this he was not dealing with C, but with something grossly resembling C. The pithed frog could go through the same performances as the normal frog. This is a mistake. His behavior is not like that of the normal frog; and therefore the empirical data on which Huxley denied the causality of conscious processes are wrongly stated. When correctly stated, these data give us the same right to call x the cause of C, which we have for calling x the effect of A.

The only correction that is needed in Huxley's view is to recognize x as a non-energetic cause of C, for the same reason that it is recognized as the non-energetic effect of A, namely the reason that it is, so far as we know, in a relation of invariable succession and precedence to the respective terms of the mechanical events.

The invariable connection of x with A, on the one hand, and with C, on the other hand, must be interpreted as one of the ultimate connections of the universe. If in the universe relations are as real as terms, then the psycho-physical relation is to be accepted as revealing part of the connective constitution of the universe, and as integral part as the mechanical relations that are revealed in physics. The one connection does not impair the other. The two connections co-

exist. There is intercausality, but this does not involve interactionism in the sense that the mechanical relations are abridged or interfered with by the intercausal relation. This intercausalism differs from parallelism in that the latter declines to admit a causal relation between the psychic and the physical in spite of an admission of invariable antecedence and succession between the two series. Parallelism is logically incompatible with Huxley's definition of causation, which is the current empirical definition.

*The Sense of Adjustment and Life of Appreciation:* E. D. STARBUCK.
*Virtues; Types and Sources:* F. C. FRENCH.

Many men who are honorable and kindly in their relations to family, neighbors, and business associates show a marked unscrupulousness in their relations to the public, governments, or corporations. This fact points to a distinction between two main types of virtue. There is one group of virtues based on sympathy, *e. g.*, kindness, good-will, generosity, benevolence, mercy. The other group, dependent more upon a sense of duty, includes justice, honesty, integrity, veracity, courage. The virtues of the first class depend upon acquaintance and close personal relations. They are the personal, gentler, more feminine virtues. The second group are of an impersonal character. They are the sterner, more masculine virtues. Different individuals, different ages, different ethical theories manifest a predominance of one or the other of these two types. While Sutherland tries to derive all virtues from sympathy and the family relationships, and Kropotkin all virtues from the mutual aid and social cooperation outside the family, the truth seems to be that the personal virtues were derived from sympathy and developed under domestic influences, while the impersonal virtues are the outgrowth of the sterner constitution of economics, military and civic life.

*An Introduction to Philosophy through the Philosophy of History:* JAY WILLIAM HUDSON.

A suggestion for a book on the metaphysical and ethical interpretations of life implied in the popular institutions of the English people, to be entitled, "A History of English Ideals." Historic events and institutions mean a vast realm of judgments concerning the true, the real, and the right, no less significant because expressed in the common language and the common deeds of common men. An age's social verdicts are often surprisingly near the technical pronouncements of the metaphysicians and ethicists. Such a study need not attempt to reveal in history the realization of a dialectical process: and its interpretations need not depend upon the standpoint of a definite metaphysics held by the author.

Such a work would be of some worth as an introduction of English-speaking students to philosophy. It would be psychologically adequate—that is, it would be an introduction by way of a natural and cultivated interest, since the average sophomore knows as much about history, especially the history of his own country, as about any other systematized body of knowledge.

Such an introduction would also be philosophically adequate, for there is one purpose among the purposes of introductions indispensable to all the rest, namely, the purpose of developing the power of spontaneous philosophic thinking. In themselves, the metaphysical problems are not likely to heighten the pulse of the average sophomore. But the conditions are changed when problems are made to emerge from absorbing social conflicts and compelling national crises. It is not an artificiality thus to relate philosophy, for philosophy from of old was born of just such concrete situations.

The paramount thing is to introduce the student through his interests, whatever they are. If metaphysics is an abstraction, it should be shown as an abstraction working in and through life, and so no mere abstraction at all.

*The Aims of an Introductory Course in Philosophy:* E. L. HINMAN.

After considering briefly the pedagogical problems which confront an introductory course in philosophy, this paper proceeds to discuss three main aims which such a course should pursue. First in importance is the purpose of displaying the unity of human culture, and its essentially humane import. As a study of the synthesis implied in knowledge and experience, philosophy is in principle a reconciling and unifying discussion. In modern life the centrifugal tendencies, however, come very near to dominating. Philosophy may here furnish a needed corrective. It may exhibit the manner in which narrow and partisan doctrines are at once fulfilled and overcome in a larger and more catholic view, and may train its students towards a breadth of vision and of sympathies much needed in our time. This refers, for instance, to the apparent clash between science and religion, regarding which philosophy has the power to reveal, on the one hand, the idealistic faith which is at the core of science, and, on the other hand, the universal religious idea which pervades the world's religion. In similar manner the political problems which turn upon the definition of the individual and of the hold which the whole has upon him may be used to illustrate fundamental philosophical issues, and the nature of a philosophical synthesis. A second important aim is that of training the student to the spirit of critical and fundamental thinking. The spirit of thoroughness and of foundation-testing, the appreciation of philosophical criticism and

its vital significance in relation to truth, and the hatred of uncritical dogmatism, are all appropriate results of this phase of such a course. A third objective is that of giving an ordered survey of the system of the sciences, which may be carried out at least to such a degree that the broader cultural ideas may be brought somewhat vividly into relation with the present state of speculation in natural science.

*The Naturalistic Approach to Philosophy:* BERNARD C. EWER.

Philosophy is a reflective study of human life and its relation to the universe. Logic and psychology are valuable preliminaries, but do not adequately present philosophical problems; and the various special disciplines are of course not equivalent to a comprehensive world-view. The ordinary "introduction to philosophy" is more properly an introduction to metaphysics. What the beginner in philosophy needs is a broad view of nature, including the individual human mind and society, based on the conclusions of the sciences, and exhibiting philosophical problems in the light of these conclusions.

As an experiment, the speaker recently tried to develop such a nature-philosophy in an elementary course, using as a basis the popular writings of eminent scientists, paying constant attention to evolutionary concepts, calling attention regularly to the numerous metaphysical assumptions and problems involved, and thus gradually leading up to the fundamental questions of ethics and religion. No attempt was made to acquaint the student with the sciences themselves, since such acquaintance can come only through special study, but rather with the ideas which scientific men set forth as the outcome of their labor, and which are of distinctly philosophic significance. The advantages of the method seemed to be a sustained interest due to a constant feeling of dealing with the actual world, and a certain concreteness of subject-matter which was helpful in developing the profounder problems of philosophy.

The Address of the President, Professor Carl E. Seashore: *The Rôle of Play in Religion.* (To be published later.)

BERNARD C. EWER,
*Secretary*

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## THE PROBLEM AND CONTENT OF EDUCATIONAL PSYCHOLOGY

IN recent years the problem as well as the content of educational psychology has increased very greatly in complexity. This is partly because the science of psychology itself has been rapidly gaining in both scope and intent until every conceivable aspect of

animal behavior as well as of human conscious life has come to be regarded as falling within its legitimate sphere of investigation. Hence it has come to pass that the one who has the planning of psychological material for those preparing to teach is embarrassed by a wealth of material, all of which seems to have more or less definite value for the purpose in hand. The main problem thus seems to be one of selection of the best from among much that is good, for it is clear that there is not time to teach everything. What, then, are the phases of this rapidly developing science which are most valuable for the training of the teacher, and according to what standard shall they be selected?

The problem we are facing, however, is not merely one of selecting from a complex science the elements that may be of value for some particular purpose. It is even more that of determining clearly a dominant view-point and the laying down of the lines for, and the development of, a new science.

It is interesting to reflect that one or at most two decades ago the problem of an educational psychology hardly existed. At least it had not gained a place at the focus of attention. It was thought at that time, as it had been thought for years, that any account of mental structures and functions, no matter how abstract it might be, if it were true, would meet the need of the teacher for a psychological training. Just because the teacher, *par excellence,* had to deal with minds, he must, perforce, know the science of the mind. We of to-day do not depreciate in any way this general descriptive science, but we doubt if it is of any more significance for those who are engaged in teaching than for those in other professions. If it is worth while, from the standpoint of general culture, to have a certain amount of scientific training, presumably psychology has as good a right as any other science to a place in the student's program. But as we have suggested, this general science has no preeminent claim upon the teaching profession. It is becoming more and more apparent that it is a science that touches in some way all phases of human activity and is concerned in all types of vocations.

With the recognition of this broad general relation between psychology and many different callings, arose also the recognition of the possibility of a much more intimate relation between the facts of the science and practical problems than had been imagined when teachers were first advised to study psychology just because of its being mental science. It was seen, in other words, that the solution of practical problems in every vocation depends in large measure upon an accurate understanding of all the factors involved. Hence the teacher must be interested in the facts furnished by the science of psychology in so far as these facts help in the interpretation and

control of situations and assist in the proper meeting of such difficulties as arise in the work of teaching.

At first, however, the *character* of this need was only imperfectly appreciated and the first attempts to meet it were through a more or less uncritical selection and superficial discussion of certain aspects of psychology such as attention, perception, memory, imagination, etc., and by tacking to them pedagogical applications of various sorts. Münsterberg well describes it as a cramming of some psychological laws to which was added an appendix of moral appeals. The outcome of the process was usually a very unreliable psychology and a sort of disjointed rule-of-thumb pedagogy.

At this point the continuity of the development of an educational psychology was broken. The next step, logically, would have been to work out a psychology of the educative process, or a discussion of the fundamental characteristics of the educative process with reference to the psychical factors involved in it. What should next have developed, in other words, should have been an organic union of aims and means to take the place of the unilluminating scrap-heap type of educational psychology that had first arisen. Certainly the value of descriptive psychology for the teacher did not end with this piecemeal application, and yet this is practically where it stands to-day. The reason for this is that attention has largely been turned in another direction, namely, toward the experimental investigation of various problems which have more or less educational interest and yet are sufficiently psychological to claim the attention of those psychologists of somewhat definite pedagogical bent. The development of experimental methods, particularly in psychology, has furnished a technique for attacking many problems having a practical bearing for the educator as well as those having a relation to the pure science of the psychologist. In many cases, the motive prompting the investigations has been rather that of the pure scientist even when it has been recognized that the results might play into the hands of the educational theorist.

Thus, in one way or another, an extensive field for experimental research in education has been opened up, in part quite definitely psychological and in part only remotely so, but in most cases full of general human interest. In fact, the enthusiasm of many students has been so great that they have been ready to regard the data afforded by the researches in this field as constituting the only *real* educational psychology. For ourselves, however, we can not escape the feeling that the field of experimental education as thus far developed belongs essentially to the advanced student. The beginner in education needs a more organized account of the fundamental relations of psychology and teaching. He has definite and practical

situations to face and these should furnish the starting-point of a genuinely scientific inquiry, which, although dealing with psychical processes and factors, is first and last concerned with educational rather than with psychological problems.

We repeat, then, that it is not mere descriptive psychology that the prospective teacher needs at this point, even though it be of the excellent type represented by James, Angell, Judd, or Royce, or, rather, his needs pass beyond that which these books afford. Nor is he ready, after having studied the descriptive science, to undertake experimental researches in educational psychology. For one thing, he has not as yet a sufficient appreciation of the problems of education to undertake such work with profit. He should understand certain general principles of the psychology of education before undertaking experimental work, just as the experimental psychologist must, to start with, have certain general notions of psychical contents, relations, processes and problems, for only thus can he appreciate the questions that lie before him as an experimentalist.

Experimental education is not, then, in a position to meet the need of the prospective teacher who has just finished his course in general descriptive psychology. Some of its problems have, it is true, grown directly out of school work, and their solution may have an important influence upon educational theory and practise. But, in the case of many of the questions, the impelling motive has been that of pure science and their bearing upon the actual conduct of school work is at best very remote. Important as is the field of experimental educational psychology, it is then preeminently the field for the research student rather than for the novice. Not that the novice may not profitably take up experimental work, but rather that this is a specialized field in which the average person who prepares to teach is not, and need not be, concerned to enter. And yet, as we have said, there has been a tendency on the part of many to limit the field of educational psychology to this sphere, a sphere in which the objects of research are unquestionably derived from education, but in which the interest is that of the pure scientist rather than of the practical teacher.

These then seem to be the alternatives before the prospective teacher at the present time, either general descriptive psychology with no attempt at applying it to his special problem, or a hodge-podge of psychological lore with certain supposed "applications," or, lastly, experimental education. The first and last of these are respectable and legitimate subject-matters, the second no respectable scientist cares to own, a bastard child, as it were. And yet, as we have said, the actual needs of the prospective teacher are met by neither one of these perfectly respectable sciences. Neither one fur-

nishes the specific information for the controlling of practise that a genuine applied science is supposed to afford.

This brings us definitely to the question as to whether there is not an as yet undeveloped science of psychology as related to teaching, a science which will not be a mere jumble of extracts with pedagogical applications attached, but rather a real applied science, with a recognizedly educational point of view and definitely determined problems which are primarily educational and yet which can be coped with best by a study of the psychological factors involved in them. Such an applied science would stand upon its own feet because it would have a unity of its own, its own peculiar problems, its own peculiar stratification and lines of cleavage. Psychological fact appears in it, not merely as psychological fact, but with reference to its throwing light upon educational problems. It presupposes in the student, however, a general knowledge of these psychological facts. It goes without saying that such a knowledge is a prerequisite to getting any light upon the educational problem through these facts. It may be that the candidate for a course in educational psychology does not know much about the general science. But just because his preparation for the applied science is defective is no excuse for calling that educational psychology which must be given him to remedy his defect. It may be necessary for the teacher of educational psychology to stop and teach some general psychology, that he may have in his class the basis on which to prosecute his educational inquiry. But when he is doing this he is not teaching educational psychology, he is rather losing time from what he is supposed to do because of the inadequate preparation of his students for that which they should be able to do when they come to him.

It has been with reference to such things as have been enumerated in the paper thus far that the present writer has for several years been gradually working out what seems to him to be a real psychology of education that is not a mere rehash of the conclusions of the general science. Neither is it experimental education, good and proper as that surely is. It rather attempts a systematic account of the educative process in the light of such elementary psychological facts as bear an important relation to controlling it and hence rendering it more effective. The attempt has been to start from some definitely educational point of view, to lay down certain fundamental educational axioms, concepts, or problems, and to investigate them in the light of the psychical processes that are involved in them.

The fundamental axiom, or concept, is that an educative process is essentially one involving change of some sort or, more specifically, growth. The nature and implications of growth as contrasted with mere mechanical accretion are first discussed and applied to learning.

The centralizing principle thus becomes the learning process as a special phase of growth.

It is freely admitted that this point of view may be too narrow to include all the facts that should belong to an educational psychology. But, on the other hand, it is doubtful if any single point of view can be found which will comprehend all the complexity of the educational process, and this one is sufficiently inclusive for practical purposes. In the process of learning, in its various aspects, we have certainly the central fact of education. It is a process which needs to be studied from many different angles, and especially from that which reveals the way in which and the extent to which it is conditioned by psychical processes, structures, and laws.

In the course as worked out from this basis, the main lines of classification and the most important concepts are, as it has been suggested they should be, primarily educational rather than psychological. Consequently we do not, after this introductory discussion of growth, become immersed in the psychology of sensation as the basis of all knowledge. In fact, to the present writer, it seems very doubtful whether an educational psychology need have anything to say of sensation or of perception as such. The next topic treated is activity or impulse. It is pointed out that growth always presupposes an inner activity of some sort. That which is entirely inert can not grow. Hence the fact that the learner is active, impulsive, is of the utmost significance in any account that may be taken of the learning process. That impulse is an essential characteristic of all organisms from the lowest to the highest is brought out and illustrated in many ways. In the lower forms and in the human infant it appears as mere restlessness, without purpose or content. In higher forms it becomes, in addition to this, desire and even "rational eagerness." We next emphasize the general importance as a prior active attitude for the apprehension of any and all new experience. Impulse is at first, moreover, entirely without *content,* that is, mere tendency to move without objective or accompanying consciousness of meaning. But the mere expression of impulse results in its acquiring some sort of more or less definite content. The suggestion is offered and developed in the course that the rich content of adult mental life is definitely related to and in fact is the outcome of the impulsive, projective attitude which every organism assumes toward its environment. Impulse thus appears to be the initial point in all learning. There must be some movement or initiative on the part of the child before he can be taught. Impulses are not to be crushed out as bad nor permitted to run riot on the supposition that they are good. They are merely the raw material of character, potentialities to be utilized. They do not cease to exist when organized into char-

acter, however, for our psychic life is always active, always reaching out, always projective. The character of the adult may differ in many ways from that of the child, but as far as impulse is concerned it differs simply in that it has content and is organized along more or less definite lines.

This phase has been worked out in varying detail according to the class, but in any case the object is to impress as clearly as possible upon the class that the learning process is one of active appropriation rather than of passive absorption.

We next discuss certain conditions which may be regarded of primary significance in calling forth impulse, conditions which are therefore favorable to learning. Two types of conditions are distinguished, representing two suggestive angles from which to view the process of mental growth. In the first there is the social atmosphere, for the learning process is one which involves in many of its aspects the interaction of minds, is, in other words, a social process. The other vitally important condition of learning is that it shall have motive or purpose, and this aspect of the subject is discussed under the heading of the problem.

With reference to the first of these fundamental conditions, that of the social atmosphere, the idea is presented that educational psychology is in large measure social psychology of a certain type. It is conceivable that learning might go on in a social vacuum, that is, be a purely individualistic affair, but the point is made that learning as far as it appears in school, as far as the teacher is concerned in it, is influenced in very important ways by the presence of other people. The attempt is made to carry this social view-point throughout the course, keeping in mind, for example, that interest, attention, memory, reasoning, and so forth, seldom develop in their recognizedly characteristic ways except under some sort of social stimulation. In other words, it seems best to let the social point of view be present more or less continuously rather than to divide the course into two parts, one dealing with the social and the other with the individualistic aspects of learning. At this point, however, the most general aspects of the social character of learning are discussed with reference to making clear the presuppositions of what follows.

The relation of the problem to learning activity is next considered in a preliminary way. It is not of course supposed that all learning is conditioned by the presence in consciousness of some definite problem, the idea is simply that this is a significant point from which to view many different types of learning. In this discussion it is first necessary to broaden the concept of the *problem* that is apt to be in the minds of most of the class. Many illustra-

tions are given drawn from all the different types of school studies as well as from life outside the school. Such topics as these are considered, the conditions under which problems arise, their relation to impulse and to the development of mental content in general, the function of the teacher with reference to the pupil's questions and their solution, for instance, can the teacher take an active part in awakening the pupil to a consciousness of problems and in helping him to solve them, and the results continue to be educative in the best sense, the relation of the higher forms of social influence to the origin and solution of purposes or things for which one may work?

In the remainder of the course the attention is fixed upon the learning, or more specifically the problem-solving activity, with the object of determining the organization of and place within it of various psychical processes. Thus interest and effort are seen to fall naturally together in the solution of a genuine problem; attention stands for the organization of the self in the face of a difficulty of some sort. The different types of attention stand for successively more and more complex organizations of the self about matters which appeal to it as affording avenues of genuine self-expression. Spontaneous attention is not intrinsically different from or lower than the voluntary or reflective type. The former is simply the expression of a more primitive or instinctive self than the latter. The attention is to be developed by the development of the self with a capacity for appreciating and grappling with many different types of purposes and problems. Attention means organization of the self, and this occurs most characteristically when one faces a problem that is for him genuine.

The next subject taken up is that of the extent and ways in which the predisposition of the psychophysical organism is operative in the learning activity. The various facts which belong to the psychology of habit, of apperception, of association and memory, contribute largely to the development of this phase of the subject. In many concrete ways we attempt to show how that which one does at any time is conditioned by his previous activities which hold over in the form of various motor coordinations, how new acts of skill are based very definitely upon previous accomplishments. This same fact of predisposition holds as truly in the sphere of feeling and ideation, and the influence of past ideas and modes of thought upon present purposes and problems is fully illustrated. If apperception is to be regarded as an assimilative activity and not merely mental predisposition, it is shown that this assimilation actually takes place more characteristically and effectively when

it is motivated in some way than if it is made to depend upon old ideas which are supposedly similar to the facts which are to be taught. Only as old experiences become problematic or discrepant do they become very active in the assimilation of the new.

As far as association and memory are concerned the general nature of the mechanism and of the primary laws is presupposed. The educator is not directly concerned with them, at least with them in the form in which they are presented in most psychologies. Mental events will be bound together in some way or other, whether the teacher thinks about it or not. That there will be some sort of associative connections goes without saying. The teacher's problem is to influence in some measure the *kinds* of connections that are to be established. These are not so much bare connections of idea with idea as more or less complicated systems of mental elements. The question is, then, as to how the most useful systems can be built up, that is, systems which will render past experiences the most thoroughly available for present needs. This systematization will be affected not so much by mere mechanical juxtaposition or by infusing a little pleasure into the union, as by using ideas together in the working out of purposes or in the solving of problems. In other words a teacher is not so much concerned with the fact that ideas do cohere as with the question of how to secure the most useful modes of coherence. He is not so much interested in the fact that two ideas may be associated by contiguity or by similarity as in the fact that a problem or purpose furnishes a dynamic center about which the simpler portions of experience may cluster and acquire indissoluble connections.

This in like manner is seen to be the condition of effective memory, of discrimination, of concept-formation, of judgment, and of reasoning. The limits of a brief paper forbid a detailed statement of this latter portion of the course. In fact, only the barest outlines of any of it have been given and it is not likely that such a schematic statement can prove entirely convincing. It can only be said in conclusion that the main objective of the course is to get old psychological facts from a new angle, such a one as will enable the student to determine which facts are really significant for the control of the educative process. As it has actually been worked out and tried with many classes the writer does not feel that it should be subjected to the criticism of being scrappy or of being a mere rehash of the general science of psychology. The ever-present educational problem gives opportunity for an organized and unified as well as for an entirely fresh treatment.

IRVING KING.

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## RECORD OF AN EXPERIENCE WHILE UNDER THE INFLUENCE OF ETHER[1]

WHILE living on a farm in Wayland, Mass., during the year 1896, it became necessary for me to have an operation performed for the removal of hemorrhoids. Having eaten nothing since the night before, and after a night of intense suffering, and during the early morning drinking more than a quart of strong black coffee, I was placed under the influence of ether about 9 A.M.

While inhaling the ether, I tried to think of something pleasant, so that my dreams might not be of an unpleasant nature. Gradually I became unconscious, singing, "Oh! the beautiful flowers," in a vain attempt to bring an image of natural scenery before my view.

My next impression was one of being utterly and completely lost to everything, even to the fact that *I* was *I*. It is hard to convey to another the complete sense of loss of everything, friends, home, and individuality. I seemed to be down on the ground, in a deep, dark, dense forest, yet without seeing or feeling any trees, and yet I seemed to sense large tree trunks standing closely together. I had no feeling of pain, only of immeasurable loss. All at once I heard a voice, scarcely audible, calling from a vast distance, "Mr. Walker—Mr. Walker." And oh! the joy that rushed through my mind, the feeling of infinite relief, the feeling of connection with somebody. "Why," I thought, "that is me, I am somebody, that's my name, I have a name, I have a friend, oh! how good," and I was filled with a feeling of contentment such as I have never experienced before or since.

I seemed to know no more until I recovered sufficiently to recognize my wife about 5 P.M. Later, I learned that the voice I had heard, was that of the doctor, who raised my eyelid, and called me by name, about an hour before I became actually conscious. He said to my wife, "He is all right now, he is coming round."

The impressions I received were so vivid that I have tried to analyze them. I have wondered whether they might not be similar to the first impressions of a developed consciousness entering into another world, similar to the feelings that might cause the first fearful cry of a new-born child, just broken loose from all its past environment, provided it had a consciousness sufficiently developed to realize the loss of all it had hitherto been connected with and dependent upon.

It may be a common experience, but I have no knowledge of a similar one.

HARRY WALKER.

PORT JERVIS, N. Y.

[1] Communicated to this JOURNAL by Professor William James, and printed by permission of the writer.

## DISCUSSION

### CAUSE AND GROUND

MR. H. S. SHELTON, in number 10 of the current volume of this JOURNAL, incidentally criticises my treatment of "Cause and Ground."[1]

The criticism amounts to this, I think, that the conception of cause is identified by me with that of ground in such a way as to make it valueless for practise, while the conception of ground itself is in a sphere where scientific investigation has no meaning. I should be sorry for your readers to think the former criticism wholly relevant and the latter wholly true and I should wish to explain what a theory like mine tries to do, and how far I still maintain that it has been successful in doing it.

1. As to value for scientific practise. The purpose of a general work on logic is emphatically not to teach scientific men their business. It is a theory of a whole subject, of which their work is only a part; and its primary aim is to put the whole subject in its natural order in a single view. For this purpose, methods processes and ideas must be put in their place; and may often lose the prominence which they claim in the eyes of workers in some special part of the field of knowledge. But to put them in their place is not to reject them; and although one does not expect to teach scientific men their business, one would be sorry to think either that one was wholly out of harmony with the spirit of their procedure, or that absolutely no light was thrown upon its nature, no scientific advance indicated or corroborated, by the juxtaposition and explanation which one had attempted.

In dealing with the idea of cause[2] I have tried to give reasons for the difficulty and evasiveness of the conception and to explain it as marking a stage in a continuous process of inference, in the higher phases of which it is not applicable. And in quite another place[3] I have tried to trace this continuous process itself—the inductive process from perception upwards, and to show that it does equally well without using at all the terminology or the elementary and popular idea of cause and effect. And here I had hoped, and am still of opinion, that I was at least on parallel lines with and had in some

[1] See my "Logic," Vol. I., c. VI.; and also Vol. II., c. IV., "Scientific Induction by Perceptive Analysis," or more shortly in "Essentials of Logic," pp. 164–5.

[2] Vol. I., *l. c.*

[3] Vol. II., *l. c.*

degree anticipated a very powerful movement in the ranks of the most recent workers in the field of exact natural knowledge, who "openly propose to expel the word 'cause' from the language of science."[4]

But in thus "theorizing" the ordinary conception of cause and effect, I was not suggesting in any way that it is not of value for the working procedure of certain sciences at certain stages. Chemistry, I presume, from which Mr. Shelton draws his instance of argon, is not in a position to aim at complete explanation ("ground"), and though it has aspirations in that direction, yet practically works in the main by direct perceptive analysis of the qualities of objects, and their effect upon one another. Here the conception of cause and effect in the sense of conditions "producing" a new condition, unaccountably different from themselves, is fully in place. But at this level it is impossible to get the conditions fully relevant to the effect, and the causal relation remains subject to "plurality of causes"; which is in flat contradiction with the principle that the effect must vary with the cause, not to speak of the difficulties attending the priority of cause in time.[5]

Now a contradiction in itself is nothing against a working conception. But any one who wishes to regard a subject as a whole must try at least to soften the contradiction by showing how it leads up to something less contradictory.

2. That is why one was driven, following many suggestions of philosophers, and in accordance with a strong tendency in men of science,[6] to exhibit the idea of cause and effect as concerned with events in time or the interaction of substances as leading up to a conception which would include what was true in it but get rid of some at least of its contradictions. I will explain the nature of this conception a little further, and try to show how many cross lights of thought are reconciled in it.

[4] Taylor, "Elements of Metaphysics," p. 175. I see that in a footnote, *l. c.*, Professor Taylor objects to the suggestion that the "descriptive" theory was a discovery of idealists. And I should not make the claim as bearing on the detailed practise of science; but I will try to show elements of kinship with it which I think are not negligible.

[5] Mr. Shelton in his example does not show his hand on this point. But surely the current idea of cause and effect, if you are going to use it, ties you down to events successive in time.

[6] I suppose I took the idea of "ground" from Hegel, observing that it agreed with points which I shall notice in Plato, and that Mill's notion of the "sum" of conditions when worked out pointed in the same direction, while Clifford roundly said ("Lectures and Essays," I., 150) that cause is simply one word for understanding all about a sequence of events. I did not, I fear, know of the "descriptive" movement, and was glad to be confirmed by it.

I understand my critic to allege it as a fault of this conception that an experience referred to its ground is one which can not be repeated.

And first, this implies that the interest and value of inductive science demands and is addressed to events which are repeated.

But strictly, I think, this is untrue. If the alleged principle of induction "same cause, same effect" were taken as its principle in bitter earnest, there could be no inference and no discovery. The interest of inductive science is surely in getting from the old knowledge to the new, and therefore in interpreting known laws in relation to new suggestions as guide to novel facts. Inductive theory is apt to leave out this side of the matter because it can not be reduced to rule. But all the same, it is where the real stress of induction lies. Professor Stout's "proportional systems" are the nearest thing, perhaps, to what is wanted at this part of the theory.[7] If an occurrence were strictly repeated, without novelty of conditions, its inclusion in an induction would have no value nor interest.

But waiving the above, which might be termed a purist view, is it true that an occurrence stated with reference to its real ground can not be repeated in the sense in which ordinary occurrences are repeated under new conditions?

When this assertion is specially made about an occurrence known in its ground it can only mean that we then *ex hypothesi* know so much about it as to differentiate it from any possible future occurrence. That is to say, our knowledge in the case supposed represents the reality of nature—the complexity of the situation—very much more adequately than when we know it as cause and effect qua separate things or events. If so, surely, for the real inductive interest, which lies in proceeding to new knowledge by disentangling new sequences, the analyzed ground is much more helpful than the mere meaning of a concrete cause whose nature and action we are unable to analyze. In a word "ground" means completer knowledge, and completer knowledge is more practically helpful than less complete.

My critic seems to assume that a reciprocal judgment can not have its content developed and must amount to a tautology. But why? I shall show directly that even as a tautology it may be a very valuable protest against errors which frequently occur in practise. But apart from this, the whole content of a science may be involved in a good definition, which is certainly always a reciprocal judgment.

In a particular case, a given science, which can pronounce on a

[7] See also my Vol. II., p. 174, on generalization by inclusion in a system as opposed to generalization by an abstract class-name.

de facto cause, may very well be unable to supply the detail required for a developed statement of ground. But that is its own lookout. No one doubts that if it could do so it would be better off than it is. Such knowledge is the very ideal on which chemistry is generally understood to have fixed its eyes. If you could say the ultimate law or nature of matter is such, and argon is such and such a modification of it, and its properties flow from this its nature, and among others its gravity, by which we first empirically discovered its existence; that would be a reciprocal judgment, and surely would be an advance towards what knowledge aspires to be. Why not explain a protective resemblance by natural selection as operative on a creature through its special environment? What is there tautologous in this?

But, I will say, tautology is not a bad thing, if it reminds us that an explanation must not leave out the matter to be explained. After all, a thing can only be explained by what includes it. "I can not understand," Plato makes Socrates say, in effect, with a large element of humor and irony, "I can not understand all those cunning causes that people speak of; but I do believe that I am safe in sticking to this, that it is beauty by which things are beautiful." This passage reads like a prophetic criticism of esthetic theories. Suggested explanations of beauty such as pleasure, realism, idealism, pure form, pure feeling, vanish like shadows before such a criterion. Within an explanation, you must retain the thing to be explained.

In ground, you are sure of this. The "effect" has become a case inside a system. In cause and effect you can not be quite sure. The relevancy of cause to effect is incomplete. You do not really know what, in your cause, is causal, and therefore what in it guarantees the effect, because, *ex hypothesi,* effect is outside cause.

I cite another defence of apparent tautology which puts the matter strikingly.

> "If the case is taken as the instance of a rule, even that by itself is *some* explanation. I know it has been said, and by those whom I respect, that we have nothing here but bare tautology; that it is frivolous to tell me that this bottle breaks *because* all bottles break. But I confess that I never could see the *bare* tautology. For the particular nature of our one bottle is in this way connected with a general law. It does not break because it is a black bottle, or a bottle made by an infidel on a Sunday, but because it possesses an unstated quality common to other bottles. And this quality *is* a reason why it breaks. The explanation of course does not satisfy our desires, since we want to make the quality explicit; but, so far as it goes, it does give us some principle, and it can not fairly be condemned as tautologous."[8]

Extremes meet; and while I make no claim to have anticipated the descriptive theorists on scientific ground (the suggestion which

[8] Bradley, "Principles of Logic," p. 49.

Professor Taylor rejects was not of my making), I do most certainly hold that Plato and Hegel and Mr. Bradley, followed at an enormous interval by myself, were driving at the same point which the "descriptive" movement has worked out on purely scientific soil. And this point is that cause and effect are arbitrary distinctions drawn on the surface of a continuous system or process. And what you must do, if science is to advance towards its aim, is to get this process or system expressed in the simplest terms, showing any effects which may interest you as cases included in it.

At all events, a logical theory has to deal with all these ideas and experiences and bring them together according to their values and interdependence. But in doing so, it does not in the least imply that men of science ought to use other ideas than they do use at particular points in their work. I may add that in my judgment this view of the nature of working ideas according to which they are dictated by the purposes for which they are needed, gives pragmatism all it ought to have, and is, of course a much older view than pragmatism. I know no justification for calling logic which takes such a view—Hegel's logic for example—"intellectualist."

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## REVIEWS AND ABSTRACTS OF LITERATURE

*Die Taktile Schätzung von ausgefüllten und leeren Strecken.* Reprinted from Archiv für Gesamte Psychologie, Bd. XVI., Heft 3 and 4. HELEN DODD COOK. Pp. 130.

The importance of method and procedure and their relation to results in experimental studies is nowhere more apparent than in the field of space perception. Time and again quantitative results which were purely a function of method have been generalized into qualitative principles of the field under investigation. Thus contradictory differences between active and passive movement may be traced to the operation of such secondary criteria as the illusion of impact. Controversy over the absolute "indifference point" in various sense fields depends in large measure on the range of magnitudes employed in different investigations, and many studies of visual interpretation are inadequate because the results are conditioned by the particular range within which the observations were made. In her recent study of the tactual estimation of filled and empty extents Dr. Helen Dodd Cook has admirably demonstrated the rôle of method and procedure in the field of tactual space perception.

The study takes its point of departure from the discordant results of Rieber, Parish and others in their experiments on the familiar illusion of open and filled space, and was begun in an attempt to reconcile these differences. In the course of the experiments other interesting results

came to light concerning the influence of place, force, and duration of the application of the stimulus, the rôle of visual imagery, the number of intermediate points, absolute length of the stretch, distribution of attention, mode of apprehending the stimulus, absolute impression, and individual differences with respect to the magnitude and direction of the illusion.

The method used throughout the investigation was that of the resting stimulus, the points of esthesiometers of varied construction being applied to the volar surface of the forearm in the long axis. The empty space or uninterrupted extent was represented by the distance between two points and filled space or interrupted extent by a similar stretch filled in with fixed points at variable distances apart. The experiments fall into two general groups or series.

*Series I.*—A set of four experiments by the method of minimal change, the standard and variable applied successively to the same area, and the terminal points being equidistant from the wrist and elbow joint respectively. Range—6–14 cm. Results—filled space is here underestimated in comparison with empty space, irrespective of time order. The illusion is influenced in magnitude by the clearness of the intermediate points. Initially, absolute localization plays an important rôle, but with practise the judgment comes to rest more and more on the direct perception of pure differences (qualitative?) in the pressure sensations themselves.

*Series II.* consists of three groups of experiments by the method of right and wrong cases (groups 5, 6 and 7).

Group 5.—Stimuli applied simultaneously to adjacent areas. Filled space is here always overestimated in comparison with empty space, and the overestimation is not caused by visual imagery, but is purely a tactual phenomenon. Direction of attention to any one stretch increases its apparent length. In most observers no space error is disclosed. When the immediate "Streckeneindruck" is the principal criterion for the judgment the magnitude of the illusion increases with the magnitude (length) of the stimulus. When secondary criteria are largely relied on an inverse relation is found. The dependence of the magnitude of the illusion on the number of intermediate points is conditioned by the way in which the stretch is apprehended (Auffassungsweise)—on whether the comparison is made in terms of the relative intensity of the two stimuli, the clearness of the intermediate points of the filled stretch, localization of the extreme points, or pure impression of extent, the illusion being greatest in the last case.

Group 6—by the method of right and wrong cases, with stimuli applied successively to the same area—confirms the results of Series I., indicating that the direction of the illusion depends on the mode of presentation of the stimulus. Differences in intensity, quality, etc., of the stimulus influence the absolute magnitude of the illusion and its relation to length of stretch, number of intermediate points, etc., but do not affect its direction.

Group 7 presents a combination of the procedures of 5 and 6, the stimuli being applied successively to adjacent areas. There is here a

tendency to overestimate the standard in the case of empty space, but no illusion in the comparison of empty space with filled.

In general the illusion seems to depend chiefly on the distribution of attention, on the mode of apprehending the stimulus and on the type of judgment, and these factors are largely conditioned by the way in which the stimuli are presented (Darbietungsmethode). Introspective records taken during the experiments yield, among other things, the following results—when the pure "Streckeneindruck" is the basis of the comparison, immediately contiguous stimuli applied simultaneously may seem to overlap. This overlapping increases with the length of the standard.

The presence of intermediate points may cause apparent displacement of the extremes, the amount of displacement depending on the force of application of the stimulus or on the degree of summation of the intensities of the separate points.

Immediate tactual impressions of extent are possible, and are especially clear in the case of filled space.

Absolute impression, dependent on expectation and adaptation, frequently plays a part in the process of comparison.

Large individual differences are shown with respect to the presence of visual imagery and schematic visual representations.

Peripheral irradiation alone is inadequate to account for the illusion.

The simultaneous method of presentation leads to a synthetic apprehension of the stimulus and to overestimation. The successive method results in analytic apprehension, but not always in underestimation.

Benussi's law of the relation of practise effect to mode of apprehension is confirmed in only part of the observers.

The extension of these principles to other tactual and to optical illusions must be made with extreme caution. No single theory seems adequate to explain the large number of spatial illusions. Nevertheless, a comparison of the tactual illusion with the analogous illusion in visual perception yields instructive points of agreement and difference.

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## JOURNALS AND NEW BOOKS

REVUE NÉO-SCOLASTIQUE DE PHILOSOPHIE. February, 1910. *Kantisme et Métagéométrie* (pp. 5–22): C. SENTROUL. – The non-Euclidean systems of geometry are far from disproving Kant's conception of space, or his philosophy of mathematical knowledge. *Le calcul des probabilités et les régularités statistiques* (pp. 23–52): JOSEPH LOTTIN. – Historically, the statistical method is a corollary of the mathematical theory of probabilities; logically, it is akin to the inductive method. *Arnold Geulincx et le procès de la philosophie aristotélicienne au XVIIe. siècle* (pp. 53–66): M. DE WULF. – The vivid attack made by Geulincx on the method and doctrines of the Peripatetics during the Saturnals of 1652 was well deserved by the degenerated representatives of Peripateticism at

the time. It does not, however, reach Peripatetic philosophy itself. *Variétés. L'état actuel du rosminianisme en Italie* (pp. 67–73): F. PALHORIÈS. – Rosminianism is actually defended in Italy by a few isolated thinkers (Billia, Morando, Caviglione) and possesses an official organ, the "Rivista Rosminiana." It can not be, however, properly called a school, nor even a philosophic group. *L'œuvre scientifique et philosophique de César Lombroso* (pp. 73–93): A. GEMELLI, O.F.M. – Lombroso's work has a philosophical as well as a scientific character. Lacking logical and critical sense in philosophy, devoid of method in the use of scientific observation and experiment, Lombroso, however, can be regarded neither as a scientist nor as a philosopher. *Le mouvement néo-thomiste* (pp. 93–103): L. NOËL. – A historical account of the recent neo-thomistic movement in Italy, Holland, Spain, and Ireland. *Bulletin de Cosmologie* (pp. 104–132): D. NYS. J. LEMAIRE. – A review of the most recent scientific discoveries and hypotheses with regard to the intimate constitution of matter. *Comptes rendus.* Ag. Gemelli, *L'enigma della vita e i nuovi orizzonti delle scienze biologiche:* J. VAN MOLLÉ. Charles Renouvier, *Critique de la doctrine de Kant:* C. SENTROUL. A. Keim, *Helvétius, sa vie, son œuvre:* JEAN NEVEN. R. Saitschik, *Französische Skeptiker, Voltaire, Mérimée, Renan. Zur Psychologie des neurren Individualismus:* JEAN NEVEN. Chanoine Brettes, *L'homme et l'univers:* D. NYS. William James, *Précis de Psychologie, traduit par E. Baudin et G. Bertier:* L. NOËL. Bertrando Spaventa, *La filosofia italiana nelle sue relazioni con la filosofia europea:* C. S. R. P. Gillet, *Devoir et Conscience:* L. NOËL. Dr. J. Kachnik, *Historia philosophiæ:* G. WALLERAND. Dr. J. Kachnik, *Ethica socialis seu Sociologia:* G. WALLERAND. G. Legrand, *L'évolution des doctrines économiques au XIX. siècle:* L. N. *Chronique philosophique. Sommaire idéologique des ouvrages et des revues de philosophie.*

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## NOTES AND NEWS

BELOW is printed the list of members of the Western Philosophical Association for 1910.

Alexander, Professor H. B., University of Nebraska, Lincoln Neb.
Ames, Professor E. S., University of Chicago, Chicago, Ill.
Angell, Professor J. R., University of Chicago, Chicago, Ill.
Becker, Mr. F. C., University of Illinois, Urbana, Ill.
Bode, Professor B. H., University of Illinois, Urbana, Ill.
Boodin, Professor John E., University of Kansas, Lawrence, Kan.
Bryant, Dr. W. M., Webster Groves, St. Louis, Mo.
Campbell, Professor H. G., Morningside College, Sioux City, Iowa.
Coe, Professor G. A., Union Theological Seminary, New York City.
Colvin, Professor S. C., University of Illinois, Urbana, Ill.
Corey, Professor C. E., Washington University, St. Louis, Mo.
Cowling, Professor D. J., Baker University, Baldwin, Kan.
Crawford, Professor A. H., Tabor College, Tabor, Iowa.
Daniels, Professor A. H., University of Illinois, Urbana, Ill.
Davies, Dr. A. E., Ohio State University, Columbus, Ohio.
Dodson, Rev. G. R., 48 Nicholson Place, St. Louis, Mo.
Ellwood, Professor C. A., University of Missouri, Columbia, Mo.

Ewer, Professor B. C., Northwestern University, Evanston, Ill.
Farley, Professor J. H., Lawrence University, Appleton, Wis.
Fite, Professor Warner, University of Indiana, Bloomington, Ind.
Fracker, Professor G. C., Marquette, Mich.
French, Professor F. C., University of Nebraska, Lincoln, Neb.
Fruit, Professor J. R., William Jewell College, Liberty, Mo.
Gore, Professor W. C., University of Chicago, Chicago, Ill.
Haynes, Professor Rowland, Univ. of Minnesota, Minneapolis, Minn.
Hill, President A. Ross, University of Missouri, Columbia, Mo.
Hinman, Professor E. L., University of Nebraska, Lincoln, Neb.
Hudson, Professor J. W., University of Missouri, Columbia, Mo.
Johnson, Dr. T. M., Osceola, Mo.
King, President H. C., Oberlin College, Oberlin, Ohio.
Knowlton, President P. G., Fargo, North Dakota.
Lindley, Professor E. H., Indiana State University, Bloomington, Ind.
Lloyd, Professor A. H., University of Michigan, Ann Arbor, Mich.
Longwell, Dr. H. C., Northwestern University, Evanston, Ill.
Lovejoy, Professor A. O., University of Missouri, Columbia, Mo.
Luckey, Professor G. W. A., University of Nebraska, Lincoln, Neb.
MacLennan, Professor S. F., Oberlin College, Oberlin, Ohio.
MacMillan, Dr. D. P., Chicago, Ill. Director Department Pedagogic Research and Child Study.
Major, Professor D. R., Ohio State University, Columbus, Ohio.
McGilvary, Professor E. B., University of Wisconsin, Madison, Wis.
Meade, Professor G. H., University of Chicago, Chicago, Ill.
Meyer, Professor Max, University of Missouri, Columbia, Mo.
Millerd, Professor Clara E., Iowa College, Grinnell, Iowa.
Monin, Professor L. C.,
Moore, Professor A. W., University of Chicago, Chicago, Ill.
Norton, Professor E. L., University of Illinois, Urbana, Ill.
O'Shea, Professor M. V., University of Wisconsin, Madison, Wis.
Patrick, Professor G. T. W., University of Iowa, Iowa City, Iowa.
Pillsbury, Professor W. B., University of Michigan, Ann Arbor, Mich.
Powell, Professor E. E., Miami University., Oxford, Ohio.
Raub, Professor W. L., Knox College, Galesburg, Ill.
Reuger, Professor H. A., Colorado College, Colorado Springs, Col.
Rogers, Professor A. K., Butler College, Irvington, Ind.
Rogers, Professor D. C., University of Kansas, Lawrence, Kan.
Scott, Professor W. H., Ohio State University, Columbus, Ohio.
Seashore, Professor Carl E., University of Iowa, Iowa City, Iowa.
Sharp, Professor F. C., University of Wisconsin, Madison, Wis.
Sherman, Dean L. A., University of Nebraska, Lincoln, Neb.
Starbuck, Professor E. D., University of Iowa, Iowa City, Iowa.
Starch, Dr. Daniel, University of Wisconsin, Madison, Wis.
Stephens, Chancellor D. S., Kansas City University, Kansas City, Mo.
Stuart, Professor H. W., Stanford University, Calif.
Swenson, Mr. David, University of Minnesota, Minneapolis, Minn.
Swift, Professor W. J., Washington University, St. Louis, Mo.

Talbert, Dr. E. L., Milwaukee Normal School, Milwaukee, Wis.
Tawney Professor G. A., University of Cincinnati, Cincinnati, Ohio.
Templin, Professor Olin, University of Kansas, Lawrence, Kan.
Thilly, Professor Frank, Cornell University, Ithaca, N. Y.
Tufts, Professor J. H., University of Chicago, Chicago, Ill.
Turner, Professor William, St. Paul Seminary, St. Paul, Minn.
Wenley, Professor R. M., University of Michigan, Ann Arbor, Mich.
Wilde, Professor Norman, University of Minnesota, Minneapolis, Minn.
Williams, Professor Mabel C., University of Iowa, Iowa City, Iowa.
Wilm, Professor E. C., Washburn College, Topeka, Kan.
Woodbridge, Professor F. J. E., Columbia University, New York City.
Wright, Professor H. W., Lake Forest College, Lake Forest, Ill.
Wright, Dr. W. K., University of Wisconsin, Madison, Wis.

At the meeting of the Aristotelian Society on June 6, Mr. Sydney Waterloo read a paper on "Some Philosophical Implications of Mr. Bertrand Russell's Logical Theory of Mathematics." "The paper had two principal objects: (1) to explain in outline the way in which Mr. Russell proves, in his book 'The Principles of Mathematics,' that the notions of infinity and continuity, as defined in modern mathematics, involve no contradictions; and (2) to examine the philosophical consequences of this proof. While admitting that Mr. Russell's proof that infinity is possible has no direct bearing on the question 'What is the nature of what exists?' he suggested that some of Mr. Russell's arguments were perhaps capable of making probable a certain universal hypothetical proposition of the nature of reality—the proposition, namely, that, if anything exists, then it is either an indivisible term or a whole composed of indivisible terms. Mr. Russell's theory of relations perhaps pointed to this conclusion, and he accordingly set forth the reasons which Mr. Russell gives for holding that relations are genuine entities and that they are external to their terms." —*The Athenæum.*

At the University of Missouri Dr. A. K. Rogers, of Butler College, has been appointed professor of philosophy, as successor to Professor A. O. Lovejoy, and Mr. Carter Alexander, fellow in Teachers College, Columbia University, has been appointed assistant professor of educational administration and private secretary to the president.

Dr. W. V. Bingham, of Teachers College, Columbia University, has been called to Dartmouth College as assistant professor of psychology and education.

Dr. J. E. Wallace Wallin, of the New Jersey Training School, has been designated Director of Psychological Research by the Committee on Oral Hygiene of the National Dental Association. A squad of children, suffering from decided oral defects, has been segregated for special treatment during half a year or more. A number of standard psychological tests will be carried out at stated intervals, in order to obtain an objective and demonstrable measure of any mental improvement which may result from the restoration of normal oral conditions.